DOCUMENT RESUME

ED 070 622 SE 015 145

AUTHOR	Preiser, Wolfgang F. E.
TITLE	Environment and Spatial Behavior: A Selected Bibliography.
INSTITUTION	Council of Planning Librarians, Monticello, Ill.
PUB DATE	Nov 71
NOTE	34p.; Exchange Bibliography 235
AVAILABLE FROM	Council of Planning Librarians, P. O. Box 229, Monticello, Illinois 61856 ($3.50)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Behavior; Behavioral Sciences; *Bibliographies; *Environment; Reference Materials; Social Sciences; *Space Utilization

ABSTRACT

This bibliography contains an alphabetical listing of approximately 500 references dealing with human spatial behavior in institutions, public places and generally environments ranging from the scale of a room to a geographic large scale environment. The purpose of the bibliography is to respond to the growing interest in the study of human spatial behavior as it relates to elements of the social and physical environment. A framework of variables relating to the three organizing concepts of space, behavior, and examples of units of analysis, are presented. (LK)

Council of Planning Librarians EXCHANGE BIBLIOGRAPHY

November 1971

235

ED 070622

ENVIRONMENT AND SPATIAL BEHAVIOR: A Selected Bibliography

Wolfgang F. E. Preiser
Assistant Professor, College of Architecture
Virginia Polytechnic Institute and State University

U S DEPARTMENT OF HEALTH
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

Mrs. Mary Vance, Editor
Post Office Box 229
Monticello, Illinois 61856

SE 015 145

ED 070622

COUNCIL OF PLANNING LIBRARIANS Exchange Bibliography #235

ENVIRONMENT AND SPATIAL BEHAVIOR:
A Selected Bibliography

By

Wolfgang F.E. Preiser
Assistant Professor
College of Architecture
Virginia Polytechnic Institute
and State University

The purpose of this bibliography is to respond to the growing interest in the study of human spatial behavior as it relates to elements of the social and physical environment.

Contained in this selection of bibliographical references are the major findings of studies which deal with human spatial behavior in institutions, public places and generally environments ranging from the scale of a room to the geographic large scale environment. Thus, one is investigating micro-behavior on one side, i.e,, body posture, movement of hands, etc., and movement patterns among regions on the other. Human spatial behavior can take different forms, whether it occurs with individuals or in groups. Many variables enter into spatial behavior; among them are motivation, cultural factors, physical environmental factors, and psycho-physical factors.

Generally, studies on spatial behavior fall into one or more behavior categories of spatial concepts. Most of the studies fit into the following framework of variables:

Spatial Concept	Behavior Category	Examples of Units of Analysis
1. Territoriality	Dominance relationships	No. of aggressive acts or submissions, frequency of use of certain locations
2. Personal space	Maintenance of personal integrity	No. of defensive acts, distances maintained
3. Proximity	Communication	No. of successful contacts, sociometric measures
4. Sociofugal vs. sociopetal space	Interaction patterns	No. and kind of encounters
5. Density	Crowding	Stress, GSR

For the purpose of measurement of behavioral categories frequently are broken down into smaller observable units such as greeting or verbal communication as manifestations of social interaction. Such units of analysis represent overt behavior episodes which can be measured. The current research trends in the field of man-environment relations are partially based on the fact that humans and animals structure their environment spatially. Originating from ethological studies with animals an area of research has evolved which deals with the determinants of human spatial behavior. Valuable insight was gained from observational studies on how animals define and mark territorial boundaries, acquire and defend territory and communicate and relate spatially to members of their own and other species. There are clear indications that some of the spatial behavior found in animals may still be operating in the human species. Recent studies have shown that social order is possible only through the establishment of rules governing the use of space. This is to minimize possible sources of conflict and resulting stress and pathologies. Therefore, the implications of environmental effects on human spatial behavior make this field of study particularly relevant to the design and planning disciplines.

Alexander, Christopher, et al. Houses Generated by Patterns. Berkeley: Center for Environmental Structure, 1969.

Alexander, C., S. Ishikawa, M. Silverstein. A Pattern Language Which Generates Multi-Service Centers. Berkeley: Center for Environmental Structure, 1968.

Alexander, Christopher. "A City is Not A Tree." Architectural Forum, May, 1965.

Alexander, Christopher. "Major Changes in Environmental Form Required by Social and Psychological Demands." Ekistics, Vol. 28, No. 165, August, 1969, pp. 78-85.

Allee, W. C. The Social Life of Animals. New York: W. Beacon Press, 1958.

Almond, Richard, and Aristide H. Esser. "Tablemate choices of psychiatric patients: A technique for measuring social contact." The Journal of Nervous and Mental Disease, Vol. 141, No. 1, 1965, pp. 68-82.

Altman, I., and W. W. Haythorn. "The Ecology of Isolated Groups." Behavioral Science, Vol. 12, 1967, pp. 169-182.

Altman, I. "An Ecological Approach to the Functioning of Social Groups." In J. E. Rasmussen, (ed.). Individual and Group Behavior in Isolation and Confinement. New York: Aldine Press, 1971.

Altman, I. "Ecological Aspects of Interpersonal Functioning." In Esser, A. H., (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Altman, I. "Territorial Behavior in Humans: An Analysis of the Concept." In Pastalan, L.A. and Carson, D.H., (eds.). Spatial Behavior of Older People. Ann Arbor: University of Michigan - Wayne State University Press, 1970.

Altman, I., and E. E. Lett. "The Ecology of Interpersonal Relationships: A Classification System and Conceptual Model." In J. E. McGrath, (ed.). Social and Psychological Factors in Stress. New York: Holt, Rinehart and Winston, 1969.

Altman, I. W. Psychological and Social Adjustment in a Simulated Shelter. Santa Barbara: American Institute for Research, 1960.

"Analysis of Social Organization in Higher Animals." Ecology, Vol. 37, pp. 213-221.

Anderson, N. "Effects of Institutionalization on Self-Esteem." Journal of Gerontology, Vol. 22, 1967, p. 313.

Anderson, Theodore R., and Janice A. Egeland. "Spatial Aspects of Social Area Analysis." American Sociological Review, June, 1961.

Andrews, D. H. The Conceptualization of Space in Peru. Paper Presented at GSH Annual Meeting of the American Anthropological Association, Pittsburgh, Pennsylvania: November, 1966.

Archea, J. and C. Eastman, (eds.). EDRA TWO. Proceedings of the 2nd Annual Environmental Design Research Association Conference. Pittsburgh, Pennsylvania: Carnegie Mellon University, 1970.

Ardrey, Robert. African Genesis. New York: Atheneum, 1961.

Ardrey, Robert. The Territorial Imperative. New York: Atheneum, 1966.

Ardrey, Robert. The Social Contract. New York: Atheneum, 1970.

Argyle, M. The Psychology of Interpersonal Behavior. Harmondsworth: Pelican, 1967.

Axelrod, Morris. "Urban Structure and Social Participation." American Sociological Review, Vol. 21, February, 1956, pp. 13-18.

Back, Kurt W. Slums, Projects and People: Social Psychological Problems of Relocation in Puerto Rico. Durham, North Carolina: Duke University Press, 1962.

Bachelard, G. The Poetics of Space. New York: Orion Press, 1964.

Balint, M. "Friendly Expanses - Horrid Empty Spaces." International Journal of Psychoanalysis, Vol. 36, 1955, pp. 225-241.

Barker, Roger C., and Paul V. Gump. Big School, Small School: High School Size and Student Behavior. Stanford, California: Stanford University Press, 1964.

Barker, Roger C. Ecological Psychology Concepts and Methods for Studying the Environment of Human Behavior. Stanford, California: Stanford University Press, 1968.

Barnlund, D. C. and C. Harland. "Propinquity and Prestige as Determinants of Communication Networks." Sociometry, Vol. 26, 1963, pp. 467-479.

Bates, Allen. "Privacy - a Useful Concept?" Social Forces, Vol. 42, 1964, p. 432.

Bechtel, Robert B. "An Investigation of the Movement Response to Environment." In C. W. Taylor, R. Bailey, and C.H.H. Branch (eds.). Second National Conference on Architectural Psychology. Salt Lake City: University of Utah, 1967.

Bechtel, Robert B. "Hodometer Research in Museums." Museum News, April, 1967.

Bechtel, Robert B. "Footsteps as a Measure of Human Preference." Topeka, Kansas: Environmental Research Foundation, May, 1967.

Bechtel, Robert B. "Hodometer Research in Architecture." Milieu, Vol. 2, 1967, pp. 1-9.

Beck, Robert. "Spatial Meaning and the Properties of the Environment." In D. Lowenthal (ed.). Environmental Perception and Behavior. Chicago: University of Chicago, Department of Geography, Research Paper No. 109, 1967, pp. 18-29.

Bell, Gwen, and Paula McGreevey. "Behavior and Environment: A Bibliography of Social Activities in Urban Space." Council of Planning Librarians, Exchange Bibliography #123. Monticello, Illinois, April, 1970.

Benepe, Berry. "Pedestrian in the City." Traffic Quarterly, January, 1965, pp. 28-42.

Berlyne, D. E. "The Influence of Complexity and Novelty in Visual Figures on Orienting Responses." Journal of Experimental Psychology, Vol. 55, No. 3, pp. 289-296.

Berman, Mark L. "Territoriality: A Concept Redefined in the Light of Some Recent Primatological Data." Arizona Academy of Science Journal, Vol. 3, No. 1, 1964.

Best, Gordon A. "Human Direction-finding Behavior." London: Bartlett School of Architecture, University College London, September, 1968. Mimeograph.

Best, Gordon A. "Direction-finding in Large Buildings." In Canter, D. V., (ed.). Architectural Psychology. London: RIBA Publications, 1970.

Biderman, A. D., M. Louria and J. Bacchus. Historical Incidents of Extreme Overcrowding. Washington: Bureau of Social Science Research, 1963.

Birdwhistell, Raymond L. Introduction to Kinesics. Louisville: University of Louisville Press, 1952.

Blake, Robert R. et al. "Housing Architecture and Social Interaction." Sociometry, Vol. 19, 1956, pp. 133-139.

Blood, R. and W. Livant. "The Use of Space Within the Cabin Group," Journal of Social Issues, Vol. 13, 1957, pp. 47-54.

Blurton, Jones, N.G. "An Ethological Study of Some Aspects of Social Behavior of Children in Nursery School." In Desmond Morris, (ed.). Primate Ethology. Garden City, New Jersey: Doubleday, 1969.

Booth, Robert C. "Spatial Perception: Satisfaction and Frustration Factors in East Liberty." Field Research Project UA 260, University of Pittsburgh, December 15, 1969.

Bracey, H. E. Neighbors: Subdivision Life in England and the United States. Baton Rouge: Louisiana State University Press, 1964.

Brody, Eugene B., (ed.). Behavior in New Environments. Beverly Hills, California: Sage Publications, 1970.

Brolin, Brent C. and John Zeisel. "Mass Housing: Social Research Design." Architectural Forum, July-August, 1968, pp. 66-71.

Brown, Warner. "Spatial Integrations in a Human Maze." California: University of California Pub. in Psychology, Vol. 5, No. 5, 1932.

Bucklin, L. P. Shopping Patterns in an Urban Area. Berkeley: University of California Press, 1967.

Burt, William H. "Territoriality and Home Range Concepts as Applied to Mammals." J. Mammal., Vol. 24, pp. 346-352.

Buttimer, Anne. "Social Space in Interdisciplinary Perspective." Geographical Review, Vol. 59, No. 3, July, 1969, pp. 147-426.

Calhoun, J. B. "Space and the Strategy of Life." In Esser, A.H., (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Calhoun, J. B. "Space and Scale: Insights from Animal Studies Relating to the Architecture and Content of Housing for the Aged." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior in Older People. Ann Arbor: University of Michigan - Wayne State University Press, 1970.

Calhoun, J. B. "The role of space in animal sociology." Journal of Social Issues, Vol. 22, 1966, pp. 46-58.

Calhoun, J. B. "Population Density and Social Pathology." Scientific American, Vol. 206, No. 2, February, 1962, pp. 139-148.

Calhoun, J. B. "Population Density." In L. Duhl, (ed.). The Urban Condition: People and Policy in the Metropolis. New York: Basic Books, 1963.

Calhoun, J. B. "The Social Use of Space." In Mayer, William V., and Van Gelder, Richard G., (eds.). Physiological Mammology. New York: Academic Press, 1963.

Campbell, Robert D. et al. Planning the Man-Environment Interaction. Alexandria, Virginia: Matrix Research Co., 1970.

Canter, David V., (ed.). Architectural Psychology. London: RIBA Publications Ltd., 1970.

Canter, David V. "Office Size: An Example of Psychological Research in Architecture." The Architects' Journal, April, 1968, pp. 881-888.

Canter, David V. "The Psychological Implications of Office Size." Ph.D. thesis, University of Liverpool, 1969.

Caplow, T., and R. Forman. "Neighborhood Interaction in a Homogeneous Community." American Sociological Review, Vol. 15, June, 1950, pp. 357-366.

Carpenter, C. R. "Territoriality: A Review of Concept and Problems." In A. Roe and G. G. Simpson. Behavior and Evolution. New Haven: Yale University Press, 1958.

Carpenter, Edmund. "Space Concepts of the Aivilik Eskimo." Explorations, Vol. 5, 1934.

Carr, Stephen, and Dale Schissler. "The City as Trip: Perceptual Selection and Memory in the View from the Road." Environment and Behavior, Vol. 1, No. 1, June, 1969, pp. 7-36.

Castairs, George M. "Overcrowding and Human Aggression." In H. D. Graham and T. R. Gurr. The History of Violence in America. New York: Bantam Books, 1969.

Chapin, F. Stuart and Richard K. Brail. "Human Activity Systems in the Metropolitan United States." Environment and Behavior, Vol. 1, No. 2, December, 1969, pp. 107-130.

Chapin, Stuart F. "Activity Systems and Urban Structure: A Working Schema." Journal of the AIP, January, 1968, pp. 11-18.

Chapin, Stuart F. and Henry C. Hightower. "Household Activity Patterns and Land Use." Journal of the AIP, Vol. 31, August, 1965, pp. 222-231.

Chapin, F. Stuart. Household Activity Systems. Chapel Hill, North Carolina: Center for Urban and Regional Studies, University of North Carolina, 1966.

Chermayeff, S. and C. Alexander. Community and Privacy. Garden City, New York: Doubleday, 1963.

Clark, W.A.V. and G. Rushton. "A Method of Analyzing the Relationship of a Population to Distributed Facilities." Environment and Behavior, Vol. 2, No. 2, September, 1970, pp. 192-207.

Coates, Gary and Kenneth Moffett, (eds.). Response to Environment. Raleigh: Student Publication of the School of Design, North Carolina State University, Vol. 18, 1969.

Coleman, A. D. "Territoriality in Man - A Comparison of Behavior in Home and Hospital." American Journal of Orthopsychiatry, Vol. 38, 1968, pp. 464-468.

Collias, N. and C. H. Southwick. "A Field Study of Population Density and Social Organization in Howling Monkeys." Proc. Amer. Philosophical Society, Vol. 96, No. 2, pp. 143-156.

Craik, K. H. "Environmental Psychology." In Craik, K. H. et al., (eds.). New Directions in Psychology, IV. New York: Holt, Rinehart and Winston, 1969.

von Cranach, M. "The Role of Orienting Behavior in Human Interaction." In Esser, A. H., (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Davis, Flora. "The Way we Speak 'Body Language'." The New York Times Magazine, May 31, 1970.

Dean, John. "Housing Design and Family Values." In Wheaton, W., Milgram, G. and Meyerson, M. E., (eds.). Urban Housing. New York: Free Press, 1966.

Deane, William. "The Reactions of a Non-Patient to a Stay on a Mental Hospital Ward." Psychiatry, Vol. 24, 1961, p. 67.

deJonge, Derk. "Applied Hodology." Landscape, Vol. 17, Winter, 1967-68, pp. 10-11.

deJonge, Derk. "Some Notes on Sociological Research in the Field of Housing." University of Delft, 1967, mimeograph.

DeLong, Alton J. "The Micro-Spatial Structure of the Older Person: Some Implications of Planning the Social and Spatial Environment." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior of Older People. Ann Arbor: University of Michigan - Wayne State University Press, 1970.

DeLong, Alton J. "Dominance - Territorial Relations in a Small Group." Environment and Behavior, Vol. 2, No. 2, September, 1970, pp. 170-191.

Dember, W. N., and R. W. Earl. "Analysis of Exploratory, Manipulative and Curiosity Behavior." Psychological Review, Vol. 64, 1957, pp. 91-96.

Dorset, Clyde and James Falick. "Designs Link Mental Health Facilities with Community Activities." Hospitals J.A.H.A., Vol. 38, February, 1964.

Downs, Roger M. "The Cognitive Structure of an Urban Shopping Center." Environment and Behavior, Vol. 2, No. 1, June, 1970, pp. 13-39.

Doxiadis, C. A. "Man, City and Automobile." High Speed Ground Transportation Journal, January, 1969, pp. 1-33.

Doxiadis, C. A. "Man and the Space Around Him." Saturday Review, December, 1968, pp. 21-23.

Dubos, Rene. Man, Medicine, and Environment. New York: New American Library, 1969.

Duffy, F. "A Method of Analyzing and Charting Relationships in the Office." The Architects' Journal, March, 1969, pp. 693-699.

Duhl, Leonard J., (ed.) The Urban Condition: People and Policy in the Metropolis. New York: Basic Books, 1963.

Dyck, A. J. "A Study in Psychological Ecology: A Description of Social Contacts of Twelve Midwest Children With Their Parents." M.A. Thesis, University of Kansas, 1958.

Efron, D. Gesture and Environment. New York: King's Crown Press, 1941.

Eldredge, H. Wentworth, (ed.). Taming Megalopolis. New York: Garden City: Doubleday, 1967.

Elkin, Lorne. "The Behavioral Use of Space by Children." (Unpublished manuscript, 1964).

Esser, Aristide H., (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Esser, Aristide H. "The Use of Space by Animals and Man." Science, Vol. 162, 1968, pp. 700-702.

Esser, Aristide H. "The Psychopathology of Crowding (Human Pollution)." American Psychological Association Meeting, September, 1970.

Esser, Aristide H. Dominance Hierarchy - Paper presented at the 23rd Annual Convention of the Society of Biological Psychiatry, Washington, D.C., June, 1968.

Esser, Aristide H. "Social Contact and the Use of Space in Psychiatric Patients." Nontechnical abstract of paper presented at the 132nd Meeting of the American Association for the Advancement of Science - Berkeley: University of California, December, 1965.

Esser, Aristide H. "Interactional Hierarchy and Power Structure on a Psychiatric Ward." In Hutt, S. J. and Hutt, C., (eds.). Behavior Studies in Psychiatry, New York: Pergamon Press, 1970.

Esser, A. H., A. S. Chamberlain, E. D. Chapple, and N. S. Kline. "Territoriality of Patients on a Research Ward." In Wortis, J., (ed.). Recent Advances in Biological Psychiatry, Vol. 12, New York: Plenum Press, 1965.

Esser, Aristide A.H. "From Territorial Image to Cultural Environment." Geloff en Wetenschap, Vol. 68, Amsterdam, 1970, pp. 81-98.

Esser, Aristide H. "The Importance of Defining Spatial Behavioral Parameters." In Esser, A.H., (ed.). Behavior and Environment - The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Esser, Aristide H., and Thomas L. Etter. "Automated Location Recording on a Psychiatric Ward." American Zoologist, Vol. 6, No. 4, November, 1966, p. 251.

Ewald, William R., (ed.). Environment for Man. Bloomington, Indiana: Indiana University Press, 1967.

Farr, Lee E. "Medical Consequences of Environmental Home Noises." Journal of the American Medical Association, No. 202, 1967, pp. 171-174.

Fast, Julius. Body Language. New York: Simon and Schuster, 1970.

Feldman, Arnold S. and Charles Tilly. "The Interaction of Social and Physical Space." American Sociological Review, Vol. 25, December, 1960, pp. 377-384.

Felipe, N., and R. Sommer. "Invasion of Personal Space." Social Problems, Vol. 14, 1966, pp. 206-214.

Fellin, Phillip, and Eugene Litwak. "Neighborhood Cohesion under Conditions of Mobility." American Sociological Review, Vol. 28, No. 3, June, 1963, pp. 364-377.

Festinger, L., S. Schachter, and K. Back. Social Pressures in Informal Groups: A Study of Human Factors in Housing. New York: Harper, 1950.

Festinger, L. "Architecture and Group Membership." Journal of Social Issues, Vol. 7, 1951, pp. 152-163.

Fiske, D. W., and S. R. Maddi. Functions of Varied Experience. Homewood, Illinois: The Dorsey Press, 1961.

Fitch, J. M. "The Architectural Manipulation of Space, Time and Activity." In Sanoff, H. and Cohn, S., (eds.). EDRA ONE, Proceedings of the First Annual Environmental Design Research Association Conference. Raleigh, North Carolina: North Carolina State University, 1970.

Foley, D. H. "The Use of Local Facilities in a Metropolis." American Journal of Sociology, Vol. 56, 1950, pp. 238-246.

Foley, Donald L. "An Approach to Metropolitan Spatial Structure." In Webber, Melvin, et al. Explorations into Urban Structure. Philadelphia: University of Pennsylvania Press, 1964.

Foote, Nelson N. et al. Housing Choices and Housing Constraints. New York: McGraw-Hill, 1960.

Freedman, Jonathan. "The Effects of Crowding on Human Behavior." Unpublished manuscript, December, 1970.

Fried, Marc, and Peggy Gleicher. "Some Sources of Resident Satisfaction in an Urban Slum." Journal of the AIP, Vol. 27, No. 4, November, 1961.

Fried, Marc. "Grieving for a Lost Home." In Duhl, L. J., (ed.). The Urban Condition. New York: Basic Books, 1963.

Friedmann, E. "Spatial Proximity and Social Interaction in a Home for the Aged." Journal of Gerontology, Vol. 21, 1966, pp. 566-570.

Gans, Herbert J. "The Balanced Community: Homogeneity and Heterogeneity in Residential Areas." Journal of the AIP, Vol. 27, 1961, pp. 176-184.

Gans, Herbert J. People and Plans. New York: Basic Books, 1968.

Gans, Herbert J. "Effect of the Move from the City to Suburb." In Duhl, L., (ed.). The Urban Condition. New York: Basic Books, 1963.

Gans, Herbert J. People and Plans: Essays on Urban Problems and Solutions. New York: Basic Books, 1968.

Gans, Herbert J. The Levittowners: Ways of Life and Politics in a New Suburban Community. New York: Random House, 1967.

Gans, Herbert J. The Urban Villagers: Group and Class in the Life of Italian-Americans. New York: Free Press, 1962.

Gans, Herbert J. "The Human Implications of Current Redevelopment and Relocation Planning." Journal of the AIP, Vol. 25, February, 1959, pp. 15-25.

Gans, Herbert J. "The Impact of Residential Site Planning on Social Relationships." January, 1960, mimeograph.

Gans, Herbert J. "Some Notes on Physical Environment, Human Behavior, and their Relationships." September, 1958, mimeograph.

Gelwicks, Louis E. "Home Range and Use of Space by our Aging Population." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior of Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Gibson, James J. The Senses Considered as Perceptual Systems. Boston: Houghton-Mifflin, 1966.

Gibson, James J. Perception of the Visual World. Boston: Houghton-Mifflin, 1950.

Giedion, Siegfried. Space, Time and Architecture. Cambridge, Massachusetts: Harvard University Press, 1963.

Gifford, R. and R. Sommer. "The Desk or the Bed?" Personnel and Guidance Journal, May, 1968, pp. 876-878.

Glass, D. C., (ed.). Environmental Influences. New York: Rockefeller University Press, 1968.

Goffman, Erving. Presentation of Self in Everyday Life. New York: Doubleday Anchor Books, 1959.

Goffman, Erving. Asylums: Essays on the Social Situation of Mental Patients and Other Inmates. Garden City, New York: Doubleday, 1961.

Goffman, Erving. Encounters - Two Studies in the Sociology of Interaction. Indianapolis: Bobbs-Merrill, 1961.

Goffman, Erving. Behavior in Public Places: Notes on the Social Organization of Gatherings. New York: The Free Press, 1963.

Goffman, Erving. Interaction Ritual: Essays on Face-to-Face Behavior. New York: Doubleday Anchor Books, 1967.

Goffman, Erving. Strategic Interaction. Philadelphia: The University of Pennsylvania Press, 1969.

Goldfinger, E. "The Elements of Enclosed Space." Architecture Review, Vol. 91, 1942, pp. 5-8.

Goldfinger, E. "Urbanism and Spatial Order." Architecture Review, Vol. 90, 1941, pp. 163-166.

Goldfinger, E. "The Sensation of Space." Architecture Review, Vol. 90, 1941, pp. 148-151.

Good, L. R., S. M. Siegel, and A. P. Bay. Therapy by Design: Implications of Architecture for Human Behavior. Springfield, Illinois: Charles Thomas, 1965.

Goodman, Paul and Percival. Communitas. New York: Random House, 1947.

Gordon, R. E. and K. K. Gordon. "Social Psychiatry of a Mobile Suburb." Internat. J. Of Soc. Psychiatry, Vol. 6, Summer, 1960, Nos. 1&2, pp. 89-100.

Gore, W. J. and L. C. Hodapp, (eds.). Change in the Small Community. New York: Friendship Press, 1967.

Goshen, Charles E., (ed.). Psychiatric Architecture. Washington, D.C.: American Psychiatric Association, 1959.

Greenbie, Barie. "Some Implications for Urban Design from Studies of Animal Behavior." In Archea, J., and Eastman, C., (eds.). EDRA TWO. Proceedings of the Second Annual Environmental Design Research Association Conference. Pittsburgh, Pennsylvania, October, 1970.

Gullahorn, J. T. "Distance and Friendship as Factors in the Gross Interaction Matrix." Sociometry, Vol. 15, 1952, pp. 23-24.

Gutman, Robert. "Site Planning and Social Behavior." Journal of Social Issues, Vol. 22, No. 4, October 1966, pp. 103-15.

Hall, Edward T. "The Authropology of Space: An Organizing Model." In Proshansky, H. M. et al., (eds.). Environmental Psychology. New York: Holt, Rinehart and Winston, 1970.

Hall, Edward T. "A System for the Motation of Proxemic Behavior." American Anthropologist, Vol. 65, 1963, pp. 1003-1027.

Hall, Edward T. "Adumbration as a Feature of Intercultural Communication." American Anthropologist, Vol. 66, 1964, pp. 154-163.

Hall, Edward T. "The Language of Space." AIA Journal, Vol. 35, February, 1961, pp. 71-74.

Hall, Edward T. "The Maddening Crowd." Landscape, Fall, 1962, pp. 26-30.

Hall, Edward T. The Silent Language. Greenwich: Fawcett Premier, 1959.

Hall, Edward T. "Proxemics - The Study of Man's Spatial Relations and Boundaries." In Galdston, I., (ed.). Man's Image in Medicine and Anthropology. New York: International Universities Press, 1963.

Hall, Edward T. "Human Needs and Inhuman Cities." Ekistics, March, 1969, pp. 181-184.

Hall, Edward T. The Hidden Dimension. Garden City: Doubleday, 1966.

Hallowell, A. Irving. "Cultural Factors in Spatial Orientation." In Hallowell, A.I., Culture and Experience. Philadelphia: University of Pennsylvania Press, 1955.

Halprin, L. "Motations." Progressive Architecture, Vol. 46, 1965, pp. 126-133.

Hare, A. Paul and Robert F. Bales. "Seating Position and Small Group Interaction." Sociometry, Vol. 26, December, 1963, pp. 480-486.

Hartman, Chester W. "Social Values and Housing Orientations." Journal of Social Issues, Vol. 19, April, 1963, pp. 113-131.

Harvey, D. "Social Processes and Spatial Form." Paper delivered at the 16th North American Regional Science Meetings, Santa Monica, California, November 7, 1969.

Hearn, Gordon. "Leadership and the Spatial Factor in Small Groups." Journal of Abnormal and Social Psychology, Vol. 104, 1957, pp. 269-272.

Hebb, D. O. The Organization of Behavior. New York: Wiley, 1949.

Hebb, D. O. "The Evolution of Territorial Behavior." In Washburn, S. L., (ed.). Social Life of Early Man. New York: Viking Fund Publications in Anthropology, No. 31, 1961.

Hebb, D. O., and W. R. Thompson. "The Social Significance of Animal Studies." In Lindzey, G., (ed.). Handbook of Social Psychology. Cambridge, Massachusetts: Addison-Wesley, 1954.

Hediger, Henri. "The Evolution of Territorial Behavior." In Washburn, S. L., (ed.). The Social Life of Early Man. London: Methuen, 1963.

Hediger, Henri. Studies of the Psychology and Behavior of Captive Animals in Zoos and Circuses. London: Butterworth, 1955.

Hewes, G. W. "World Distribution of Certain Postural Habits." American Anthropologist, Vol. 57, 1955, pp. 231-244.

Heyman, M. "Space and Behavior: A Selected Bibliography." Landscape, Vol. 13, 1964, pp. 4-10.

Hoffer, Abraham. "The Importance of Privacy in Building Human Values into the Community." Community Planning Review, Vol. 19, Summer, 1969, pp. 13-16.

Hole, Vere. "Social Effects of Planned Rehousing." Town Planning Review, Vol. 30, July, 1959, pp. 161-173.

Holland, L. (ed.). Who Designs America? Garden City, New York: Doubleday Anchor Books, 1966.

Howard, I. P. and W. B. Templeton. Human Spatial Orientation. New York: Wiley, 1966.

Horowitz, M. J. "Human Spatial Behavior." American Journal of Psychotherapy, Vol. 19, No. 1, 1965, pp. 20-28.

Horowitz, M. J., D. F. Duff, and L. O. Stratton. "Personal Space and the Body-buffer Zone." Archives of General Psychiatry, Vol. 11, December, 1964, pp. 651-656.

Howard, D. Territory in Bird Life. London: Collins Publishing Company, 1948.

Hsia, V. Residence Hall Environment: A Comparative Study in Architectural Psychology. Master's thesis, Salt Lake City, University of Utah, 1967.

Hutt, S. J. and C. Hutt, (eds.). Behavior Studies in Psychiatry. New York: Pergamon Press, 1970.

Hutt, S. J. and C. Hutt. Direct Observation and Measurement of Behavior. Springfield, Illinois: Charles C. Thomas, 1970.

Hutt, C. Crowding and Personality: Some Empirical Results. Paper delivered to the 8th Congress of Comparative Pathology, Beirut, Lebanon, September, 1966.

Ianni, Francis A.J. "Time and Place as Variables in Acculturation Research." American Anthropologist, Vol. 60, 1958, pp. 39-46.

Ito, Shigeru. "Pedestrian Separation from Automobile Traffic." Ekistics, August, 1966.

Ittelson, W. H. Visual Space Perception. New York: Springer, 1960.

Ittelson, W. H. Some Factors Influencing the Design and Function of Psychiatric Facilities. New York: Department of Psychology, Brooklyn College, 1960.

Ittelson, W. H., H. M. Proshansky, and L. G. Rivlin. "Bedroom Size and Social Interaction of the Psychiatric Ward." Environment and Behavior, Vol. 2, No. 3, December, 1970, pp. 255-270.

Izumi, K. "An Analysis for the Design of Hospital Quarters for the Neuropsychiatric Patients." Mental Hospitals, April Architectural Supplement, 1957.

Izumi, K., et al. "Architectural Study Project - The Saskatchewan Plan." Mental Hospitals, March, 1957, pp. 27-31.

Izumi, K. "Psychosocial Phenomena and Building Design." Building Research, Vol. 2, No. 4, 1965, pp. 9-12.

Jackson, J. B. "The Strangers Path." Landscape, Vol. 7, No. 1, 1957, pp. 11-15.

Jacobs, H. "How Big Was the Crowd?" Talk given at California Journalism Conference, Sacramento, February 24-25, 1967. Cited in Sommer, R. Personal Space. Englewood Cliffs, New Jersey: Prentice-Hall, 1969, p. 28.

Jacobs, Jane. Death and Life of Great American Cities. New York: Random House, 1969.

James, John. "A Preliminary Study of the Size Determinant in Small Group Interaction." American Sociological Review, Vol. 16, 1951, pp. 474-477.

Jennings, B. H., and J. E. Murphy, (eds.). Interactions of Man and His Environment. New York: Plenum Press, 1966.

Jewell, P. A., and C. Loizos, (eds.). Play, Exploration and Territory in Mammals. New York: Academic Press, 1966.

Kaminski, G., and U. Osterkamp. "Untersuchungen ueber die Topologic Sozialer Handlungsfelder." Zietschrift fuer Experimentelle und Angewandte Psychologie, Vol. 9, 1962, pp. 417-451.

Kates, R. "Stimulus and Symbol: The View from the Bridge." Journal of Social Issues, Vol. 7, No. 4, 1966.

Kates, R. W., and J. F. Wohlwill. "Man's Response to the Physical Environment." The Journal of Social Issues, Vol. 22, No. 4, October, 1966.

Katz, Robert D. Intensity of Development and Livability of Multi-Family Housing Projects: Design Qualities of European and American Housing Projects. Washington, D.C.: U. S. Government Printing Office, 1963.

Keller, Suzanne. The Urban Neighborhood: A Sociological Perspective. New York: Random House, 1968.

Keller, Suzanne. "The Role of Social Class in Physical Planning." International Social Science Bulletin, Vol. 18, No. 4, 1966.

Kennedy, Robert W. "Sociopsychological Problems of Housing Design." In Festinger, L., (ed.). Social Pressure in Informal Groups. New York: Harper, 1950.

Kepes, Gyorgy, (ed.). Sign, Image, Symbol. New York: Braziller, 1966.

King, Murray G. "Interpersonal Relations in Preschool Children and Average Approach Distance." Journal of Genetic Psychology, Vol. 109, 1966, pp. 109-116.

Kira, Alexander. The Bathroom: Criteria for Design. New York: Bantam Books, Inc., 1966.

Kleck, Robert, et al. "The Effect of Stigmatizing Conditions on the Use of Personal Space." Psychological Reports in press.

Kling, V. "Space: A Fundamental Concept in Design in Psychiatric Architecture." In Goshen, C., (ed.). Psychiatric Architecture. Washington, D.C.: American Psychiatric Association, 1959.

Kloman, William. "E. T. Hall and the Human Space Bubble." Horizon, Vol. 9, Autumn, 1967, pp. 42-47.

Kolaja, Jiri. Social System and Time and Space. Pittsburgh: Duquesne University Press, 1969.

Kriesberg, L. "Neighborhood Setting and the Isolation of Public Housing Tenants." Journal of the AIP, Vol. 34, 1968, pp. 43-49.

Kuhn, Michael. "Researches in Human Space." Ekistics, June, 1968.

Kumove, D. "A Preliminary Study of the Social Implications of High Density Living Conditions." Toronto: Social Planning Council of Metropolitan Toronto, 1966.

Kuper, L. Living in Towns. London: Cresset, 1953.

Larson, Theodore C., (ed.). SER 1, Environmental Abstracts. Ann Arbor, Michigan: Architectural Research Laboratory, College of Architecture and Design, University of Michigan, 1965.

Lawton, M. Powell. "Public Behavior of Older People in Congregate Housing." In Archea, J. and Eastman, C., (eds.). EDRA TWO. Proceedings of the Second Annual Environmental Design Research Association Conference. Pittsburgh, Pennsylvania, October, 1970.

Lawton, M. P. "Ecology and Aging." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior of Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Lawton, M. Powell and Bonnie Simon. "The Ecology of Social Relationships in Housing for the Elderly." The Gerontologist, Vol. 8, pp. 108-115.

Lee, T. R. "Psychology and Living Space." Transactions of the Bartlett Society, Vol. 2, 1963, pp. 9-36.

Lee, Terence R. "The Concept of Space and Control of the Environment." Arena (Architectural Association Journal), Vol. 82, No. 908, 1967, pp. 172-5.

Lee, Terence R. "Brennan's Law of Shopping Behavior." Psychological Reports, Vol. 2, 1962, pp. 662.

Lee, Terence R. "The Psychology of Spatial Orientation." Architectural Association Quarterly, July, 1969.

Lee, Terence R. "The Optimum Provision and Sitting of Social Clubs." Durham Research Review, Vol. 4, 1963, pp. 53-61.

Lee, Terence R. "Perceived Distance as a Function of Direction in a City." Environment and Behavior, Vol. 2, No. 1, June, 1970, pp. 40-51.

Lee, Terence R. "Urban Neighborhood as a Socio-spatial Schema." Human Relations, Vol. 21, 1968, pp. 241-67.

Leibman, Miriam. "The Effect of Sex and Race Norms on Personal Space." Environment and Behavior, Vol. 2, No. 2, September, 1970, pp. 208-246.

Lewis, D., (ed.). Pedestrians in the City. London: Architect's Yearbook, Vol. 2, 1966.

Lipman, Alan. "Building Design and Social Interaction." The Architects' Journal, January, 1968, pp. 23-30.

Lipman, Alan. "A Socio-Architectural View of Life in Three Old People's Homes." Gerontology Clinica, Vol. 10, 1968, pp. 88-101.

Lipman, Alan. "Territoriality: A Useful Architectural Concept?" RIBA Journal, January, 1970.

Lipman, Alan. "The Architectural Belief System and Social Behavior." British Journal of Sociology, Vol. 20, 1969, pp. 190-204.

Lipman, Alan. "Old People's Homes: Siting and Neighborhood Integration." The Sociological Review, Vol. 15, 1967, pp. 323-338.

Little, K. B. "Personal Space." Journal of Experimental Social Psychology, Vol. 1, 1965, pp. 237-247.

Lorenz, Konrad. On Aggression. New York: Bantam, 1967.

Loring, W. "Housing and Social Organization." Social Problems, Vol. 3, 1956, pp. 160-168.

Lorinz, W. C. "Residential Environment: Nexus of Personal Interactions and Health Development." Journal of Health and Human Behavior, Vol. 5, No. 4, Winter, 1965.

Lowenthal, D., et al. An Analysis of Environmental Perception: Interim Report. Washington, D.C.: Resources for the Future, Inc., 1967.

Lowrey, Robert A. "Distance Concepts of Urban Residents." Environment and Behavior, Vol. 2, No. 7, June, 1970, pp. 52-73.

Lucas, R. C. "Wilderness Perception and Use: The Example of the Boundary Waters Canoe Area." Natural Resources Journal, Vol. 3, 1963, pp. 394-411.

Lucas, R. C. "User Concepts of Wilderness and Their Implications for Resource Management." In H. M. Proshansky, et al., (eds.). Environmental Psychology. New York: Holt, Rinehart & Winston, 1970.

Luria, S. M., J. S. Kinney, and S. Weissman. "Distance Estimates with 'Filled' and 'Unfilled' Space." Perceptual and Motor Skills, Vol. 24, 1967, pp. 1007-1010.

Lyman, Stanford M., and Marvin B. Scott. "Territoriality: A Neglected Sociological Dimension." Social Problems, Vol. 15, 1967, pp. 236-249.

Lynch, Kevin. The Image of the City. Cambridge, Massachusetts: MIT Press, 1960.

Lynch, Kevin. "The City As Environment." Scientific American, No. 213, September, 1965.

Lynch, K. and L. Rodwin. "A Theory of Urban Form." Journal of the AIP, Vol. 24, No. 4, November, 1958.

Lynch, K., and M. Rivkin. "A Walk Around the Block." Landscape, Vol. 8, 1959, pp. 24-34.

McBride, Glen. "The Role of Flight, Fight, and Social Distance." In Esser, A. H., (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1970.

McBride, Glen. "The Conflict of Crowding." Discovery, Vol. 27, No. 4, 1966, pp. 14-19.

McBride, Glen. "Social Adaption to Crowding in Animals and Man." In Boyden, S. V., (ed.). The Impact of Civilization on the Biology of Man. Canberra: A.N.U. Press, 1970.

McBride, Glen, M. G. King, and J. W. James. "Social Proximity Effects on GSR in Adult Humans." Journal of Psychology, Vol. 61, 1965, pp. 153-157.

McGrew, P. L. "Social and Spatial Density Effects on Spacing Behaviour in Preschool Children." J. Child Psychol. Psychiat., to be published 1971.

McGrew, P. L. "Interpersonal Spacing Behavior During Nursery School Group Formation." Dept. of Psychology, University of Edinburgh, 1970, Mimeograph.

McHarg, I. L. "Man and His Environment." In Duhl, L., (ed.). The Urban Condition: People and Policy in the Metropolis. New York: Basic Books, 1963.

McHarg, Ian L. "Design with Nature." Garden City, New York: The Natural History Press, 1969.

McMahon, M. L. "The Relationship between Environmental Setting and Curiosity in Children." Unpubl. Master's thesis. M.I.T.: Department of City and Regional Planning, 1966.

Mack, Raymond W. "Ecological Patterns in an Industrial Shop." Social Forces, Vol. 32, 1954, pp. 351-356.

Madge, Charles. "Private and Public Spaces." Human Relations, Vol. 3, No. 2, June, 1950, pp. 187-199.

Manning, Peter. "Human Consequences of Building Design Decisions." Architects' Journal, Vol. 142, 1965, pp. 1577-1580.

Marie, Pierre, and P. Behague. "Syndrome de Desoriantation dans l'Espace." Revue Neurologique, Vol. 26, No. 1, 1919.

Markus, Thomas A. "The Function of Windows - A Reappraisal." Building Science, Vol. 2, 1967, pp. 97-101.

Marshall, Nancy J. "Environmental Components of Orientations Toward Privacy." In Archea, G. and Eastman, C., (eds.). EDRA TWO, Proceedings of the Second Annual Environmental Design Research Association Conference, Pittsburgh, Pennsylvania: Carnegie Mellon University, October, 1970.

Martin, Ann. "The Pedestrian in the City: A Bibliography." Ekistics, Vol. 28, No. 166, September, 1968, p. 212.

Martin, H. "Architectural Planning for Activity Areas." Mental Hospitals, Vol. 9, April, 1958, pp. 22-30.

Mattingly, P. F. "Our Crowded World: Human Population Growth and Aggregation." The Advancement of Science, Vol. 24, 1968, pp. 358-403.

Mead, Margaret. "Neighborhoods and Human Needs." Ekistics, February, 1966, pp. 124-126.

Meier, Richard L. "The Metropolis as a Transaction-Maximizing System." Daedalus, Vol. 97, 1968, pp. 1301-1302.

Meyerson, Martin, et al. Housing, People, and Cities. New York: McGraw-Hill, 1962.

Michelson, W. "Analytic Sampling For Design Information: A Survey of Housing Experience." In Sanoff, H. and Cohn, S., (eds.). EDRA ONE, Proceedings of the First Annual Environmental Design Research Association Conference. Raleigh, North Carolina: North Carolina State University, 1970.

Michelson, W. "An Empirical Analysis of Urban Environmental Preferences." Journal of the AIP, Vol. 32, 1966, pp. 355-360.

Miller, B. Interactional Hierarchy in the Classroom. Unpublished M.Sc. Thesis in Social Work, University of Wisconsin, 1970.

Miller, J. M. "Residential Density: Relating People to Space Rather than to Ground Area." Journal of the AIP, Vol. 27, No. 1, February, 1961, pp. 77-78.

Mintz, N. L. and A. H. Maslow. "Effects of Aesthetic Surroundings, 1." Journal of Psychology, No. 41, 1956, pp. 247-254.

Mintz, N. L. "Effects of Aesthetic Surroundings, 2." Journal of Psychology, No. 41, 1956, pp. 459-466.

Moore, E. G. "Some Spatial Properties of Urban Contact Fields." Geographical Analysis, No. 2.

Morill, Richard. The Spatial Organization of Society. Belmont, California: Wadsworth Publishing Co., Inc., 1970.

Morris, Desmond, (ed.). Primate Ethology, Garden City, New York: Doubleday, 1969.

Morris, Desmond. The Human Zoo. New York: McGraw-Hill, 1969.

Muchow, Martha. Der Lebensraum des Grosstadkindes. Hamburg: M. Riegel, 1935.

Mumford, Lewis. "The Neighborhood and the Neighborhood Unit." Town Planning Review, Vol. 24, 1954.

Murray, Henry A. "Toward a Classification of Interaction." In Parsons, T. and Shils, E. A., (eds.). Toward a General Theory of Action. Cambridge, Massachusetts: Harvard University Press, 1951.

Newton, M. R. "A Study in Psychological Ecology: the Behavior Settings in an Institution for Handicapped Children." M.A. Thesis, University of Kansas, 1953.

Noble, J. and J. Nash. "Appraisal of User Requirements in Mass Housing." Architects' Journal, Vol. 24, August, 1966, p. 479.

Noble, J. "The How and Why of Behaviour: Social Psychology for the Architect." The Architects' Journal, Vol. 137, 1963, pp. 531-46.

Norum, Russo N. and R. Sommer. "Seating Patterns and Group Task." Psychology in the Schools, Vol. 4, 1967, pp. 276-280.

Oeding, D. "Verkehrsbelastung und Dimensionierung von Gehwegen und anderen Anlagen des Fuss gaengerverkehrs." Strassenbau und Strassenverkehrs technik, Reft 22, 1963.

Older, R. J. "The Speed, Density and Flow of Pedestrians on Footways in Shopping Streets." Road Research Laboratory, Research Note No. LN/662-SJO, 1964. Unpublished.

Older, R. J. "Movement of Pedestrians on Footways in Shopping Streets." Traffic, Engineering and Control, August, 1968, pp. 160-163.

Osmond, Humphry. "Function as a Basis of Psychiatric Ward Design." Mental Hospitals, Vol. 8, 1956, pp. 23-29.

Osmond, Humphry. "Some Psychiatric Aspects of Design." In Holland, Laurence B. Who Designs America? Garden City, New York: Doubleday Anchor, 1966.

Otto, Henry J. "An Experiment with Elementary School Classroom Seating and Equipment." Texas School Board Journal, Vol. 2, December, 1955, pp. 3-6.

Paluck, R. J. and A. H. Esser. "Territorial Behavior as an Indicator of Changes in Clinical Behavioral Condition of Severly Retarded Boys." American Journal of Mental Deficiency, to be published, 1971.

Paluck, R. J. and A. H. Esser. "Controlled Experimental Modification of Aggressive Behavior in Territories of Severly Retarded Boys." American Journal of Mental Deficiency, to be published, 1971.

Park, Robert E. "The City: Suggestions for the Investigation of Human Behavior in the City." American Journal of Sociology, Vol. 10, 1915, pp. 577-612.

Parr, A. E. "The Child in the City: Urbanity and the Urban Scene." Landscape, Vol. 16, Spring, 1967, pp. 1-8.

Pastalan, L. A. and D. H. Carson. Spatial Behavior of Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Pastalan, L. A. and D. H. Carson. "Spatial Behavior: An Overview." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior in Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Pastalan, L. A. "Privacy as an Expression of Human Territoriality." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior of Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Pastalan, L. A. "Spatial Privacy and Differential Manifestations of the Territorial Imperative Among the Elderly in Various Congregate Living Arrangements." Ann Arbor: The University of Michigan Institute of Gerontology, 1968, Mimeograph.

Piaget, J. The Child's Conception of Space. New York: W. W. Norton and Company, 1967.

Pill, Roisin. "Space and Social Structure in Two Children's Words." The Sociological Review, Vol. 15, July, 1951, pp. 179-192.

Pontius, Anneliese A. "Neuro-Psychiatric Hypothesis About Territorial Behavior." Perceptual and Motor Skills, Vol. 24, June, 1967, pp. 1232-1234.

Preiser, Wolfgang F.E. "Behavioral Design Criteria in Student Housing - The Measurement of Verbalized Response to Physical Environment." In Sanoff, H. and Cohn, S. (eds.). EDRA ONE, Proceedings of the 1st Annual Environmental Design Research Association Conference. Raleigh, North Carolina: North Carolina State University, 1970.

Priest, R. F., and J. Sawyer. "Proximity and Peership: Bases of Balance in Interpersonal Attraction." American Journal of Sociology, Vol. 72, 1967, pp. 633-649.

Proshansky. H. M., W. H. Ittelson, and L. Rivlin, (eds.). Environmental Psychology. New York: Holt, Rinehart and Winston, 1970.

Proshansky, H. M., W. H. Ittelson, and L. G. Rivlin. "Freedom of Choice and Behavior in a Physical Setting." In Proshansky, H. M., et al., (eds.). Environmental Psychology. New York: Holt, Rinehart and Winston, 1970.

Rapoport, Amos. "Observations Regarding Man-Environment Studies." Man-Environment Systems, Vol. 1, No. 1, January, 1970.

Rapoport, A. "The Personal Element in Housing: An Argument for Open Ended Design." RIBA Journal, July, 1968, pp. 300-307.

Rasmussen, Steen Eiler. Experiencing Architecture. Cambridge, Massachusetts: The M.I.T. Press, 1959.

Raven, John. "Sociological Evidence on Housing." The Architectural Review, July, 1967, pp. 68-72.

Raven, John and K. J. Haynes. "Social Contact, Loneliness and Club-Going Among Old People." Journal of Town Planning Institute, Vol. 52, March, 1966.

Reichenbach, Hans. The Philosophy of Space and Time. New York: Dover Publications, Inc., 1958.

Revez, G. "The Problem of Space with Particular Emphasis on Specific Sensory Space." American Journal of Psychology, Vol. 1, 1937, p. 434.

Riemer, Svend. "Hidden Dimensions of Neighborhood Planning." Land Economics, Vol. 26, May, 1950, pp. 197-201.

Ritter, Paul. Planning for Man and Motor. New York: Pergamon Press, 1964.

Ritter, Paul. "Planning for Walking and Riding." Surveyor, pp. 34-35.

Rolfe, Howard C. "Observable Differences in Space Use of Learning Situations in Small and Large Classrooms." (Ph.D. Thesis, University of California at Berkeley, 1961).

Rosenberg, Gerhard. "High Population Densities in Relation to Social Behavior." Ekistics, Vol. 25, 1968, pp. 425-427.

Rosenfeld, H. M. "Effect of an Approval - Seeking Induction on Interpersonal Proximity." Psychological Reports, Vol. 17, 1965, pp. 120-122.

Rosengren, W. R. and S. DeVault. "The Sociology of Time and Space in an Obstetrical Hospital." In H. M. Proshansky et al., (eds.). Environmental Psychology. New York: Holt, Rinehart, and Winston, 1970.

Rosenmayr, Leopold, (ed.). Wohnen in Wien. Wien: Stadtbanamt der Stadt Wien, 1956.

Rosow, Irving. "The Social Effects of the Physical Environment." Journal of the AIP, Vol. 27, No. 2, May, 1961, pp. 127-133.

Ross, M. "Psychiatric Clinics: Standards, Practices, and Trends." Hospitals, Vol. 13, July, 1962, pp. 356-360.

Rossi, Peter. Why Families Move. Glencoe, Illinois: Free Press, 1955.

Ruesch, J. and W. Kees. "Nonverbal Communication: Notes on the Visual Perception of Human Relations." Berkeley: University of California Press, 1956.

Russo, Nancy. "Connotation of Seating Arrangements." Cornell Journal of Social Relations, Vol. 2, 1967, pp. 37-44.

Sabaroff, B. J. The Bio-Psycho-Sociological Effects of the Environment on Man. Department of Architecture, Rhode Island School of Design, 1966.

Salmon, F. Cutlibert and Christine F. Salmon. The Blind: Space Needs for Rehabilitation. Stillwater, Oklahoma: Oklahoma State University, 1964.

Sanders, S., M. Laurendeau, and C. Bergeron. "Aging and the Concept of Space: The Conservation of Surfaces." Gerontologist, Vol. 1, (1960), pp. 281-286.

Sandstrom, C. I. Orientation in the Present Space. Stockholm: Almquist and Wicksell, 1951.

Sanoff, H. and S. Cohn, (eds.). EDRA ONE. Proceedings of the 1st Annual Environmental Design Research Association Conference. Raleigh, North Carolina: North Carolina State University, 1970.

Scheflen, A. E. "Significance of Posture in Communications Systems." Psychiatry, Vol. 27, No. 4, (November, 1964).

Schmitt, Robert C. "Implications of Density in Hong Kong." Journal of the AIP, Vol. 24, No. 3, (August, 1963) pp. 210-217.

Schmitt, Robert C. "Density, Delinquency, and Crime in Honolulu." Sociology and Social Research, Vol. 41, (March-April, 1957), pp. 274-276.

Schmitt, Robert C. "Population Densities and Mental Disorders in Honolulu." Hawaii Medical Journal, Vol. 16, (March-April, 1957).

Schmitt, Robert C. "Density, Health and Social Organization." Journal of the AIP, Vol. 32, (1966), pp. 38-40.

Schorr, A. L. Slums and Social Insecurity. Washington, D.C.: U. S. Government Printing Office, 1966.

Schutz, William. FIRO: A Threedimensional Theory of Interpersonal Behavior. New York: Rinehart, 1958.

Seeley, John R. "The Slum: Its Nature, Use and Users." Journal of the AIP, Vol. 25, (February, 1959), pp. 7-14.

Segall, M., D. T. Campbell, and M. J. Herskovits. The Influence of Culture on Visual Perception. Indianapolis: Bobbs-Merrill, 1966.

Seguire, Carlos Alberto. "The 'Individual' Space." International Journal of Neuropsychiatry, Vol. 3, (March-April, 1967) pp. 108-117.

Shafer, E. L., Jr. "Perception of Natural Environments." Environment and Behavior, Vol. 1, (1969), pp. 71-82.

Shemyakin, F. N. "Orientation in Space." In Psychological Science in the U.S.S.R., Vol. 1, Washington, D.C., United States.

Simon, B. and M. P. Lawton. "Proximity and Other Determinants of Friendship Formation Among the Elderly." Paper presented at Annual Meeting of the Eastern Psychological Association. Boston, April, 1967.

Sivadan, P. "Space as Experienced: Therapeutic Implications." In H. M. Proshansky et al. (eds.). Environmental Psychology. New York: Holt, Rinehart and Winston, 1970.

Sommer, Robert. Personal Space: The Behavioral Basis of Design. Englewood Cliffs, New Jersey: Prentice-Hall, 1969.

Sommer, Robert. "Spatial Parameters in Naturalistic Social Research." In Esser, A. H. (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Sommer, Robert. "Small Group Ecology in Institutions for the Elderly." In Pastalan, L. A. and Carson, D. H. (eds.). Spatial Behavior of Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Sommer, Robert, and H. F. Ross. "Sociofugal Space." American Journal of Sociology, Vol. 72, 1967, pp. 654-660.

Sommer, Robert and H. Ross. "Social Interaction on a Geriatrics Ward." International Journal of Social Psychology, Vol. 4, 1958, pp. 128-133.

Sommer, Robert. "The Ecology of Study Areas." Environment and Behavior, Vol. 2, No. 3, December, 1970, pp. 271-280.

Sommer, Robert. "Classroom Ecology." Journal of Applied Behavioral Science, Vol. 3, 1967, pp. 489-503.

Sommer, Robert. "Space - Time on Prarie Highways." Journal of the AIP, July, 1967, pp. 274-276.

Sommer, Robert. "Personal Space." AIA Journal, Vol. 38 (December, 1962), pp. 81-88.

Sommer, Robert and C. Witney. "Design for Friendship." Journal of the AIA, Vol. 38, December, 1962, pp. 84-86.

Sommer, Robert. "Leadership and Group Geography." Sociometry, Vol. 24, March, 1961, pp. 99-110.

Sommer, Robert. "Reading Areas in College Libraries." The Library Quarterly, Vol. 38, 1968, pp. 249-260.

Sommer, Robert. "Man's Proximate Environment." Journal of Social Issues, Vol. 22, 1966, pp. 59-70.

Sommer, Robert. "Small Group Ecology." Psychological Bulletin, Vol. 67, 1967, pp. 145-152.

Sommer, Robert. "Studies in Personal Space." Sociometry, Vol. 22, 1959, pp. 247-260.

Sommer, Robert. "The Significance of Space." Journal of the AIA, May, 1965, pp. 63-65.

Sommer, Robert. "Further Studies of Small Group Ecology." University of California, Davis, 1965, Mimeograph.

Sommer, Robert. "Alien Building." Arts and Architecture, (April, 1966), pp. 18-19.

Sommer, Robert. "The Ecology of Privacy." Library Quarterly, Vol. 36, 1966, pp. 234-238.

Sonnenfeld, J. "Environmental Perception and Adaption Level in the Arctic." In Lowenthal, C. (ed.). Environmental Perception and Behavior. Chicago: University of Chicago, Department of Geography, Research Paper No. 109, 1967, pp. 43-59.

Sonnenfeld, J. "Variable Values in Space Landscape: An Inquiry Into the Nature of Environmental Necessity." Journal of Social Issues, Vol. 22, 1966, pp. 71-82.

Sonnenfeld, J. "Equivalence and Distortion of the Perceptual Environment." Environment and Behavior, Vol. 1, No. 1, (1969), pp. 88-99.

Spivack, Mayer D. "Sensory Distortions in Tunnels and Corridors." Hospital and Community Psychiatry, Vol. 18, No. 1, (January, 1967), pp. 24-30.

Spivack, Mayer D. Physical Environment and Behavior: A Bibliography. Laboratory of Community Psychiatry: Harvard University, 1967, Mimeograph.

Spratt, W. H. Human Groups. Baltimore: Penguin, 1958.

Srivastava, R. K., and L. R. Good. Patterns of Group Interaction in Three Architecturally Different Psychiatric Treatment Environments. Topeka, Kansas: Environmental Research Foundation, 1968.

Srivastava, R. K., and T. S. Peel. Human Movement as a Function of Color Stimulation. Topeka, Kansas: Environmental Research Foundation, 1968.

Stea, David. "Space, Territory and Human Movements." Landscape, Vol. 15, No. 1, 1965, pp. 13-16.

Stea, David. "Environmental Perception and Cognition: Toward a Model for Mental Maps." Student Publication of the School of Design, Vol. 18. Raleigh, North Carolina: North Carolina State University, 1969.

Stea, David. "Home Range and Use of Space." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior of Older People. Ann Arbor: The University of Michigan - Wayne State University, 1970.

Steele, Fred I. "Problem Solving in the Spatial Environment." In Sanoff, H. and Cohn, S., (eds.). EDRA ONE. Proceedings of the First Annual Environmental Design Research Association Conference, Raleigh, North Carolina: North Carolina State University, 1970.

Steinitz, Carl. "Meaning and Congruence of Urban Form and Activity." Journal of the AIP, Vol. 34, No. 4, July, 1968.

Steinzor, B. "The Spatial Factor in Face to Fact Discussion Groups." Journal of Abnormal and Social Psychology, Vol. 45, 1950, pp. 552-555.

Stilitz, Ivor B. "Pedestrian Congestion." In Canter, D.V., (ed.). Architectural Psychology. London: RIBA Publications, 1970.

Stilitz, I. B. "The Role of Static Pedestrian Groups in Crowded Spaces." Engonomics, Vol. 12, No. 6, 1969, pp. 821-839.

Stilitz, Ivor B. "Behavior in Circulation Areas." University College Environmental Research Group, University College, London, 1969. Unpublished.

Stone, G. "City Shoppers and Urban Identification: Observations on the Psychology of City Life." American Journal of Sociology, Vol. 60, 1954, pp. 36-45.

Stuart, Don G. "Planning for Pedestrians." Journal of the AIP, Vol. 34, No. 1, January, 1968.

Studer, Raymond G. "The Organization of Spatial Stimuli." In Pastalan, L. A. and Carson, D. H., (eds.). Spatial Behavior in Older People. Ann Arbor: The University of Michigan - Wayne State University Press, 1970.

Taeuber, Karl E., and Alma F. Taeuber. Negroes in Cities: Residential Segregation and Neighborhood Change. Chicago: Aldine Publishing Co., 1965.

Tannenbaum, Judith. "The Neighborhood: A Socio-psychological Analysis." Land Economics, Vol. 24, No. 4, November, 1948, pp. 358-369.

Taylor, C. W., R. Bailey and C.H.H. Branch, (eds.). Second National Conference on Architectural Psychology. Salt Lake City, Utah: University of Utah, September, 1967.

Theodoresan, G. A. (ed.). Studies in Human Ecology. Evanston, Illinois: Row, Petersen and Co., 1961.

Thiel, P. "A Sequence-Experience Notation for Architectural and Urban Space." Town Planning Review, Vol. 32, 1961, pp. 33-52.

Thiel, P. Notes on Environmental Space and Elementary Space Notation. Seattle: University of Washington, 1965.

Thiessen, D. D. "Population Density and Behavior: A Review of Theoretical and Psychological Contributions." Texas Reports on Biology and Medicine, Vol. 22, Summer, 1964,, pp. 266-314.

Thompson, Brenda and Peter Hart. "Pedestrian Movement. Results of a Small Town Survey." Journal of the Town Planning Institute, July-August, 1968, pp. 338-342.

Tomeh, Aida K. "Informal Group Participation and Residential Patterns." American Journal of Sociology, Vol. 70, July, 1964,, pp. 28-35.

Trowbridge, C. C. "On Fundamental Methods of Orientation and Imaginary Maps." Science, Vol. 38, No. 990, December, 1913,, pp. 880-897.

U. S. Army Human Engineering Bibliographic Series. Human Engineering Laboratories, Aberdeen Proving Ground, Maryland.

Von Senden, M. Space and Sight. Glencoe, Illinois: Free Press, 1960.

Von Uexkull, G. "A Stroll Through the Worlds of Animals and Man." In Schiller, C., (ed.). Instinctive Behavior. New York: International University Press, Inc., 1957.

Wallace, Anthony F.C. "Planned Privacy: What's Its Importance for the Neighborhood?" Journal of Housing, Vol. 13 (January, 1956), pp. 13-14.

Wallace, Anthony F.C. Housing and Social Structure: A Preliminary Survey with Particular Reference to Multi-Storey, Low Rent Public Housing Projects. Philadelphia: Philadelphia Housing Authority, 1952.

Wallace, Anthony F.C. "The Social Effects of the Physical Environment." Journal of the AIP, Vol. 27, No. 2 (May, 1961).

Watson, O. M., and T. D. Graves. "Quantitative Research in Proxemic Behavior." American Anthropologist, Vol. 68 (1966), pp. 971-985.

Webber, Melvin M. "Order in Diversity: Community without Propinquity." In Wingo, L., (ed.). Cities and Space. Baltimore: Johns Hopkins University Press, 1963.

Webber, Melvin M. and Carolyn C. Webber. "Culture, Territoriality and the Elastic Mile." In Eldredge, H. W., (ed.). Taming Megalopolis, Vol. 1. Garden City, New York: Anchor Books, 1967.

Webber, Melvin M. "The Urban Place and the Nonplace Realm." In Webber, M. M. et al. Explorations into the Urban Structure. Philadelphia: University of Philadelphia Press, 1967.

Wells, B.W.P. "The Psycho-Social Influence of Building Environment: Socio-metric Findings in Large and Small Office Spaces." Building Science, Vol. 1, 1965, pp. 152-165.

Wenkart, Antonia. "Spatiality and Human Experience." American Journal of Psychotherapy, Vol. 22, April, 1968, pp. 270-279.

Westin, A. F. Privacy and Freedom. New York: Atheneum, 1967.

Wheeler, L. Behavioral Research for Architectural Planning and Design. Ewing Miller Associates, Terre Haute, Indiana, 1967.

Whyte, William F. "The Social Structure of the Restaurant." American Journal of Sociology, Vol. 54, 1949, pp. 302-308.

Willems, E. P. "Forces toward Participation in Behavior Settings of Large and Small Institutions." M.A. Thesis, University of Kansas, 1963.

Williams, Robin M. Strangers Next Door: Ethnic Relations in American Communities. Englewood Cliffs, New Jersey: Prentice-Hall, 1964.

Willis, Margaret. "Designing for Privacy." Ekistics, Vol. 17, No. 98, January, 1964, pp. 47-51.

Wilmott, Peter. "Housing Density and Town Design in a New Town." Town Planning Review, Vol. 33, July, 1962, pp. 115-127.

Wilmott, Peter, and Edmund Cooney. "Space Standards Research." Journal of the AIP, Vol. 29, No. 2, May, 1963.

Wilner, D., R. Walkley, T. Pinkerton, and M. Tayback. The Housing Environment and Family Life. Baltimore: Johns Hopkins University Press, 1962.

Wingo, Lowdon (ed.). Cities and Space. Baltimore: Johns Hopkins Press, 1963.

Winick, C. and H. Holt. "Seating Positions as Non-verbal Communication in Group Analysis." Psychiatry, Vol. 24 (1961), pp. 171-182.

Winkel, G., and R. Sasanoff. An Approach to an Objective Analysis of Behavior in Architectural Space. Seattle: University of Washington, Architecture/Development, Series No. 5, August, 1966.

Winkel, G. H., (ed.). "Perception and Evaluation of Man's Physical Environment." Environment and Behaviour, Vol. 1, No. 1, 1969, pp. 3-100.

Wittrein, H. A. "Orientation in Space." Research Reviews. Washington, D.C.: Office of Naval Research, December, 1949.

Wolff, Michael. The Behavior of Pedestrians on 42nd Street, New York City. Graduate Center, City University of New York, Mimeograph, 1970.

Wolff, Michael, and Verena Hirsch. "Some Pedestrian Observations." Time Magazine, 1970, p. 66.

Wolpert, J. "The Decision Process in a Spatial Context." Annals of the Association of American Geographers, Vol. 54, 1964, pp. 537-558.

Wolpert, J. "Migration as an Adjustment to Environmental Stress." Journal of Social Issues, Vol. 22, 1966, pp. 92-101.

Wolpert, J. "Behavioral Aspects of the Decision to Migrate." Papers of the Proceedings of the Regional Science Association, Vol. 15, 1965, pp. 159-169.

Worokin, P. Sociocultural Casuality: Space and Time, A Study of Referential Principles of Sociology and Social Science. Durham, North Carolina: Duke University Press, 1943.

Wyburn, G. M., R. W. Pickford and R. J. Hirst. Human Senses and Perception. Toronto: University of Toronto Press, 1964.

Wynne-Edwards, V. C. Animal Dispersion in Relation to Social Behavior. New York: Hafner, 1962.

Wynne-Edwards, V. C. "Space Use and the Social Community in Animals and Men." In Esser, A. H., (ed.). Behavior and Environment: The Use of Space by Animals and Men. New York: Plenum Press, 1971.

Yancey, William L. "Architecture, Interaction, and Social Control: The Case of a Large-Scale Public Housing Project." Environment and Behavior, Vol. 3, No. 1 (March, 1971), pp. 3-22.

Yarosz, Edward J. and Harry Bradley. "The Relationship Between Physical Distance and Sociometric Choices in Two Residence Halls." International Journal of Sociometry and Sociatry, Vol. 3, March-June, 1963, pp. 42-55.

Yoshioka, J. G. "A Direction-Orientation Study with Visitors at the New York Worlds Fair." Journal of Gen. Psychol., Vol. 27, 1942, pp. 3-33.

Young, Michael and Peter Wilmott. Family and Kinship in East London. Glencoe, Illinois: Free Press, 1957.

Zeisel, J. and B. Brolin. "Mass Housing: Social Research and Design." The Architectural Forum, Vol. 129, July-August, 1968.

Zeisel, John. "Symbolic Meaning of Space and the Physical Dimensions of Social Relations." Paper presented to the American Sociological Association, Annual Meeting, September 1, 1969.

Zisman, S. B. "Open Space and Urban Growth." In Eldredge, H. W., (ed.). Taming Megalopolis, Vol. 1, Garden City, New York: Anchor Books, 1967.

COUNCIL OF PLANNING LIBRARIANS Exchange Bibliography #235

ENVIRONMENT AND SPATIAL BEHAVIOR

Additional copies available from:

Council of Planning Librarians
Post Office Box 229
Monticello, Illinois, 61856

for $3.50.

- - - - - - - - - - -